

Residential chillers and heat pumps

BRAN2 0021 - 0121



Reversible unit, air source for outdoor installation 4,81-27,2 kW

BRAN is the Climaveneta range of air-cooled reversible heat pumps with gas R410A. They are outdoor units with axial fans, hermetic Scroll compressors and Full Floating technology. The latter is an intelligent electronic providing the perfect answer to residential or commercial market requirements: compactness, ease of installation and quietness.

The units can be arranged to satisfy a wide range of system requirements: with base or with integrated EC inverter pump low consumption, ErP2015 complied.

Controls

Full Floating features

The new generation electronic controller allows to manage the chiller by using the Full Floating technology, designed by Climaveneta for improving the system's efficiency for the fans (Floating Fans), for the circulating pump (Floating Flow) and finally for the working temperature (Floating Setpoint). This also allows to achieve all the following benefits: improvement of efficiency in both standard and extreme conditions, much lower operating noise in part load conditions, lower installation time, lower time for system set-up, broader operating limits, faster transient after defrosts.

Version

B Basic

Features

Structure and base in hot-dip galvanised steel with epoxy powder paint finish.
Condensate collecting tray for models 0011 ÷ 0061.

Hermetic scroll type compressors, equipped with the crankcase heater and thermal protection

High efficiency, low pressure drop AISI 316 stainless steel plate heat exchangers, fitted with heating element to provide frost protection.

Finned coils made with copper pipes and aluminium fins with large exchange surface area, tested for leaks with dried air at 30 bar.

Coil protection grid for models 0011+0061.

Axial electric fans, external rotor, 6-pole electric motor fitted with thermal protection, housed in aerodynamic conveyor profile with safety grill

Continuous fan speed regulation with pressure switch

User interface unit on board, accessible from the outside with a not touch system

Phase sequence controller for models 0071+0121

Differential pressure switch.

Extensive operating limits in heating mode, leaving water temperature up to 55°C and down to -10°C, in cooling mode as well, leaving water temperature up to -10°C and max external air temperature 46°C.

Accessory

- Integrated hydronic module with high efficiency inverter pump, safety valve, expansion tank, manual air vent
- Soft starters
- HSW15 remote keyboard
- Outside air temperature probe for plant water set point compensation.
- Serial card BUS ADAPTER for ModBus
- Copper-Copper heat exchanger coils
- Copper-Aluminum heat exchanger coils with epoxy treatment
- Condensate collecting tray for models 0071 ÷ 0121
- Electric heater for condensate collecting tray to avoid freezing
- Coil protection grid for models 0071+0121
- External buffer tank and hydronic connecting kit
- External main switch kit
- Removable metal mesh water filter kit
- Rubber anti-vibration mounting kit



BRAN2			0021	0025	0031	0041	0021	0025	0031
Power supply	V/ph/Hz		230/1/50	230/1/50	230/1/50	230/1/50	400/3/50	400/3/50	400/3/50
COOLING ONLY (GROSS VALUE)									
Cooling capacity	(1)	kW	4,82	5,91	7,31	9,61	4,81	6,01	7,37
Total power input	(1)	kW	2,00	2,47	3,33	3,91	1,96	2,34	3,04
EER	(1)	kW/kW	2,41	2,39	2,20	2,46	2,45	2,57	2,42
ESEER	(1)	kW/kW	2,92	2,96	2,73	2,90	3,02	3,18	2,91
COOLING ONLY (EN14511 VALUE)									
Cooling capacity	(1)(2)	kW	4,81	5,89	7,29	9,56	4,80	5,99	7,35
EER	(1)(2)	kW/kW	2,38	2,37	2,17	2,42	2,43	2,54	2,40
ESEER	(1)(2)	kW/kW	2,89	2,92	2,70	2,86	3,00	3,14	2,88
Cooling energy class			E	E	F	E	E	D	E
HEATING ONLY (GROSS VALUE)									
Total heating capacity	(3)	kW	6,73	8,33	10,4	12,8	6,70	8,25	10,0
Total power input	(3)	kW	2,28	2,89	3,52	4,41	2,27	2,74	3,28
COP	(3)	kW/kW	2,95	2,88	2,95	2,90	2,95	3,01	3,05
HEATING ONLY (EN14511 VALUE)									
Total heating capacity	(3)(2)	kW	6,76	8,37	10,5	12,9	6,73	8,29	10,0
COP	(3)(2)	kW/kW	2,93	2,86	2,93	2,86	2,93	2,98	3,02
Cooling energy class			C	C	C	C	C	C	B
SEASONAL EFFICIENCY IN HEATING (EN14825 VALUE)									
PDesign	(4)	kW	4,88	6,30	7,47	9,84	4,88	6,02	7,14
SCOP	(4)		2,98	3,02	3,01	2,95	3,04	3,14	3,05
Performance η_s (Reg. 811/2013 UE)	(4)	%	116	118	118	115	119	123	119
Seasonal efficiency class (Regulation (UE) 811/2013)	(4)		A	A	A	A	A	A	A
EXCHANGERS									
HEAT EXCHANGER USER SIDE IN REFRIGERATION									
Water flow	(1)	m ³ /h	0,83	1,02	1,26	1,65	0,83	1,03	1,27
Pressure drop	(1)	kPa	4,82	5,80	6,34	12,6	4,81	5,99	6,44
HEAT EXCHANGER USER SIDE IN HEATING									
Water flow	(3)	m ³ /h	1,17	1,45	1,81	2,23	1,16	1,43	1,74
Pressure drop	(3)	kPa	9,58	11,7	13,1	22,9	9,48	11,5	12,1
COMPRESSORS									
Compressors nr.	N°		1	1	1	1	1	1	1
No. Circuits	N°		1	1	1	1	1	1	1
NOISE LEVEL									
Sound power level in cooling	(5)(6)	dB(A)	66	66	66	69	66	66	66
Sound power level in heating	(5)(7)	dB(A)	65	67	67	70	65	67	67
Noise Pressure	(8)	dB(A)	52	52	52	54	52	52	52
SIZE AND WEIGHT									
A	(9)	mm	900	900	900	900	900	900	900
B	(9)	mm	370	370	370	370	370	370	370
H	(9)	mm	640	940	940	1240	640	940	940
Operating weight	(9)	kg	95	110	115	140	95	110	115

Notes:

1 Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.

2 Values in compliance with EN14511-3:201H.

3 Plant (side) heat exchanger water (in/out) 40°C/45°C; Source (side) heat exchanger air (in) 7°C - 87% R.H.

4 Seasonal space heating energy efficiency class LOW TEMPERATURE in AVERAGE climate conditions [REGULATION (UE) N. 811/2013]

5 Sound power on the basis of measurements made in compliance with ISO 9614.

6 Sound power level in cooling, outdoors.

7 Sound power level in heating, outdoors.

8 Average sound pressure level at 1m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.

9 Unit in standard configuration/execution, without optional accessories.

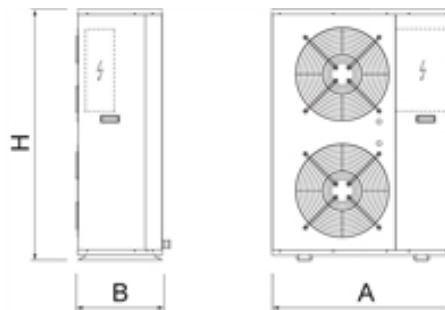
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BRAN2			0041	0051	0061	0071	0091	0101	0121
Power supply	V/ph/Hz		400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
COOLING ONLY (GROSS VALUE)									
Cooling capacity	(1) kW		10,00	11,2	13,1	16,0	18,5	22,4	27,2
Total power input	(1) kW		4,04	4,49	5,03	6,33	7,71	8,43	11,2
EER	(1) kW/kW		2,48	2,49	2,60	2,53	2,40	2,66	2,43
ESEER	(1) kW/kW		2,99	2,84	3,07	2,95	2,82	3,10	2,88
COOLING ONLY (EN14511 VALUE)									
Cooling capacity	(1)(2) kW		9,95	11,1	13,0	15,9	18,4	22,3	27,1
EER	(1)(2) kW/kW		2,43	2,45	2,56	2,49	2,36	2,62	2,39
ESEER	(1)(2) kW/kW		2,94	2,78	3,00	2,89	2,77	3,05	2,83
Cooling energy class			E	E	D	E	E	D	E
HEATING ONLY (GROSS VALUE)									
Total heating capacity	(3) kW		13,3	14,7	17,2	21,4	24,5	29,5	35,7
Total power input	(3) kW		4,55	4,69	5,63	6,67	7,66	9,31	11,1
COP	(3) kW/kW		2,92	3,13	3,06	3,21	3,20	3,17	3,22
HEATING ONLY (EN14511 VALUE)									
Total heating capacity	(3)(2) kW		13,4	14,8	17,3	21,5	24,7	29,7	35,9
COP	(3)(2) kW/kW		2,89	3,08	3,02	3,16	3,15	3,13	3,17
Cooling energy class			C	B	B	B	B	B	B
SEASONAL EFFICIENCY IN HEATING (EN14825 VALUE)									
PDesign	(4) kW		10,1	10,9	12,6	15,0	15,9	21,3	24,0
SCOP	(4) %		3,03	2,96	3,02	3,09	2,97	3,08	2,99
Performance η_s (Reg. 811/2013 UE)	(4) %		118	115	118	121	116	120	117
Seasonal efficiency class (Regulation (UE) 811/2013)	(4)		A	A	A	A	A	A	A
EXCHANGERS									
HEAT EXCHANGER USER SIDE IN REFRIGERATION									
Water flow	(1) m ³ /h		1,72	1,93	2,25	2,76	3,18	3,86	4,68
Pressure drop	(1) kPa		13,6	14,0	13,7	15,6	16,2	16,3	18,6
HEAT EXCHANGER USER SIDE IN HEATING									
Water flow	(3) m ³ /h		2,31	2,56	2,99	3,72	4,27	5,12	6,21
Pressure drop	(3) kPa		24,6	24,6	24,1	28,4	29,1	28,8	32,8
COMPRESSORS									
Compressors nr.	N°		1	1	1	1	1	1	1
No. Circuits	N°		1	1	1	1	1	1	1
NOISE LEVEL									
Sound power level in cooling	(5)(6) dB(A)		69	69	69	74	74	76	76
Sound power level in heating	(5)(7) dB(A)		70	70	70	75	75	77	77
Noise Pressure	(8) dB(A)		54	54	54	59	59	60	60
SIZE AND WEIGHT									
A	(9) mm		900	900	900	1450	1450	1450	1450
B	(9) mm		370	370	420	550	550	550	550
H	(9) mm		1240	1240	1390	1200	1200	1700	1700
Operating weight	(9) kg		140	160	170	265	270	340	345

Notes:

- 1 Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- 2 Values in compliance with EN14511-3:201H.
- 3 Plant (side) heat exchanger water (in/out) 40°C/45°C; Source (side) heat exchanger air (in) 7°C - 87% R.H.
- 4 Seasonal space heating energy efficiency class LOW TEMPERATURE in AVERAGE climate conditions [REGULATION (UE) N. 811/2013]
- 5 Sound power on the basis of measurements made in compliance with ISO 9614.
- 6 Sound power level in cooling, outdoors.
- 7 Sound power level in heating, outdoors.
- 8 Average sound pressure level at 1m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- 9 Unit in standard configuration/execution, without optional accessories.

Certified data in EUROVENT



Residential chillers and heat pumps

MICS-N 0072 - 0182



Modular reversible unit, air source for outdoor installation 17,3-42,5 kW

MICS-N is the Climaveneta range of reversible air-cooled heat pumps. They are outdoor units with axial fans, hermetic Scroll compressors and Full Floating technology. The latter is an intelligent electronic unit providing the perfect answer to residential market requirements: compactness, ease of installation and quietness.

Controls

Keyboard Master Control

MICS features an innovative design that optimises the possibilities of connecting up several units, reducing the necessary access space to a minimum and thereby the overall size of the units.

Increasingly better capacity control

The possibility of controlling up to six units as a single product means that MICS can increase the number of available control steps, thereby ensuring practically perfect adaptation to the real heat load trend.

Modular design

KMC is the central control of the cascade modules. Its main function is to supervise operation of all the modules, making them operate synergically. As a user interface it has a graphic display and a keypad for navigating in the pull-down menus.

Full Floating technology

The full floating technology with automatic control of the airflow rate, water flow rate and water temperature gains a new function: Flex Energy, used to manage the capacity control steps in linear or alternating sequence in installations with several modules.

Version

FF	Basic version, with built-in hydronic kit
FFT	Basic version without hydronic kit

Features

Structure and base in hot-dip galvanised steel with epoxy powder paint finish.
High efficiency, low pressure drop AISI 316 stainless steel plate heat exchangers, fitted with heating element to provide frost protection.

External access to control with anti-tamper device.

Finned coils made with copper pipes and aluminium fins with large exchange surface area, tested for leaks with dried air at 30 bar.

User interface with display.

Electronic expansion valve

Available water pipe fittings in case of installation under appliance

Differential pressure switch.

Air vent valve

The hydronic circuit on the FF models includes:

- Multistage centrifugal pump
- Expansion tank
- Safety valve
- Pressure gauge
- Drain valve.

Accessory

- Remote control kit
- Kit for connecting the KMC keyboard
- KMC keyboard for modular system
- Coil protection grids
- Removable metal mesh water filter kit
- Rubber anti-vibration mounting kit



MICS-N / FF			0072	0092	0122	0152	0182
Power supply		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
COOLING ONLY (GROSS VALUE)							
Cooling capacity	(1)	kW	17,3	21,8	30,3	37,4	42,5
Total power input	(1)	kW	6,50	9,30	10,7	13,4	15,5
EER	(1)	kW/kW	2,66	2,34	2,83	2,79	2,74
ESEER	(1)	kW/kW	3,86	3,75	3,78	3,92	3,96
COOLING ONLY (EN14511 VALUE)							
Cooling capacity	(1)(2)	kW	17,4	21,9	30,4	37,6	42,7
EER	(1)(2)	kW/kW	2,48	2,26	2,74	2,75	2,68
ESEER	(1)(2)	kW/kW	3,29	3,40	3,52	3,77	3,75
Cooling energy class			E	F	C	C	D
HEATING ONLY (GROSS VALUE)							
Total heating capacity	(3)	kW	20,2	26,1	33,9	42,6	47,9
Total power input	(3)	kW	6,50	8,60	11,2	14,0	15,4
COP	(3)	kW/kW	3,11	3,03	3,03	3,04	3,11
HEATING ONLY (EN14511 VALUE)							
Total heating capacity	(3)(2)	kW	20,1	26,0	33,8	42,5	47,7
COP	(3)(2)	kW/kW	2,87	2,88	2,91	2,95	3,01
Heating energy class			C	C	C	C	B
SEASONAL EFFICIENCY IN HEATING (EN14825 VALUE)							
PDesign	(4)	kW	16,6	18,0	30,2	30,7	33,3
SCOP	(4)		2,95	3,15	3,09	3,27	3,30
Performance η_s (Reg. 811/2013 UE)	(4)	%	115	123	120	128	129
Seasonal efficiency class (Regulation (UE) 811/2013)	(4)		A	A	A	A+	A+
EXCHANGERS							
HEAT EXCHANGER USER SIDE IN REFRIGERATION							
Water flow	(1)	m ³ /h	2,98	3,75	5,22	6,44	7,32
Available unit's head	(1)	kPa	133,5	150,2	111,4	132,2	142,7
HEAT EXCHANGER USER SIDE IN HEATING							
Water flow	(3)	m ³ /h	3,51	4,54	5,89	7,40	8,32
Available unit's head	(3)	kPa	102,2	122,2	86,7	78,4	118,2
COMPRESSORS							
Compressors nr.		N°	2	2	2	2	2
No. Circuits		N°	1	1	1	1	1
NOISE LEVEL							
Sound power level in cooling	(5)(6)	dB(A)	80	80	83	83	83
Sound power level in heating	(5)(7)	dB(A)	78	78	83	83	83
Noise Pressure	(8)	dB(A)	64	64	66	66	66
SIZE AND WEIGHT							
A	(9)	mm	1040	1040	1630	1630	1630
B	(9)	mm	790	790	790	790	790
H	(9)	mm	1725	1725	1725	1725	1725
Operating weight	(9)	kg	330	350	440	480	510

Notes:

1 Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.

2 Values in compliance with EN14511-3:201H.

3 Plant (side) heat exchanger water (in/out) 40°C/45°C; Source (side) heat exchanger air (in) 7°C - 87% R.H.

4 Seasonal space heating energy efficiency class LOW TEMPERATURE in AVERAGE climate conditions [REGULATION (UE) N. 811/2013]

5 Sound power on the basis of measurements made in compliance with ISO 9614.

6 Sound power level in cooling, outdoors.

7 Sound power level in heating, outdoors.

8 Average sound pressure level at 1m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.

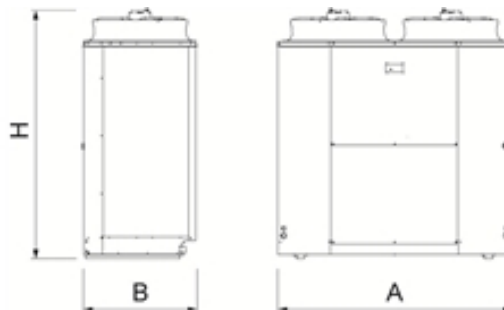
9 Unit in standard configuration/execution, without optional accessories.

Certified data in EUROVENT

MICS-N / FFT			0072	0092	0122	0152	0182
Power supply		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
COOLING ONLY (GROSS VALUE)							
Cooling capacity	(1)	kW	17,3	21,8	30,3	37,4	42,5
Total power input	(1)	kW	6,50	9,30	10,7	13,4	15,5
EER	(1)	kW/kW	2,66	2,34	2,83	2,79	2,74
ESEER	(1)	kW/kW	3,86	3,75	3,78	3,92	3,96
COOLING ONLY (EN14511 VALUE)							
Cooling capacity	(1)(2)	kW	17,2	21,7	30,1	37,2	42,2
EER	(1)(2)	kW/kW	2,60	2,30	2,76	2,73	2,68
ESEER	(1)(2)	kW/kW	3,67	3,58	3,60	3,74	3,76
HEATING ONLY (GROSS VALUE)							
Total heating capacity	(3)	kW	20,2	26,1	33,9	42,6	47,9
Total power input	(3)	kW	6,50	8,60	11,2	14,0	15,4
COP	(3)	kW/kW	3,11	3,03	3,03	3,04	3,11
HEATING ONLY (EN14511 VALUE)							
Total heating capacity	(2)(3)	kW	20,4	26,3	34,1	42,9	48,3
COP	(2)(3)	kW/kW	3,06	2,99	2,98	3,00	3,06
SEASONAL EFFICIENCY IN HEATING (EN14825 VALUE)							
PDesign	(4)	kW	14,9	18,3	30,6	31,2	34,0
SCOP	(4)		3,38	3,45	3,26	3,39	3,43
Performance η_s (Reg. 811/2013 UE)	(4)	%	132	135	127	133	134
Seasonal efficiency class (Regulation (UE) 811/2013)	(4)		A+	A+	A+	A+	A+
EXCHANGERS							
HEAT EXCHANGER USER SIDE IN REFRIGERATION							
Water flow	(1)	m ³ /h	2,98	3,75	5,22	6,44	7,32
Pressure drop	(1)	kPa	26,4	25,4	32,7	32,3	40,7
HEAT EXCHANGER USER SIDE IN HEATING							
Water flow	(3)	m ³ /h	3,51	4,54	5,89	7,40	8,32
Pressure drop	(3)	kPa	36,7	37,0	41,6	42,7	52,7
COMPRESSORS							
Compressors nr.		N°	2	2	2	2	2
No. Circuits		N°	1	1	1	1	1
NOISE LEVEL							
Sound power level in cooling	(5)(6)	dB(A)	80	80	83	83	83
Sound power level in heating	(5)(7)	dB(A)	78	78	83	83	83
Noise Pressure	(8)	dB(A)	64	64	66	66	66
SIZE AND WEIGHT							
A	(9)	mm	1040	1040	1630	1630	1630
B	(9)	mm	790	790	790	790	790
H	(9)	mm	1725	1725	1725	1725	1725
Operating weight	(9)	kg	330	350	440	480	510

Notes:

- 1 Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- 2 Values in compliance with EN14511-3:201H
- 3 Plant (side) heat exchanger water (in/out) 40°C/45°C; Source (side) heat exchanger air (in) 7°C - 87% R.H.
- 4 Seasonal space heating energy efficiency class LOW TEMPERATURE in AVERAGE climate conditions [REGULATION (UE) N. 811/2013]
- 5 Sound power on the basis of measurements made in compliance with ISO 9614.
- 6 Sound power level in cooling, outdoors.
- 7 Sound power level in heating, outdoors.
- 8 Average sound pressure level at 1m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.
- 9 Unit in standard configuration/execution, without optional accessories.



Residential chillers and heat pumps

BRN2 0021 - 0061



Reversible unit, air source for indoor installation 4,81-13,1 kW

BRN2 is the Climaveneta range air-cooled heat pumps with gas R410A. They are fitted with hermetic Scroll compressors and Full Floating technology. The latter is an intelligent electronic unit providing the perfect answer to residential market requirements: compactness, ease of installation and quietness. The units are designed for indoor installation with radial plug-fan as standard equipment. The air outflow can be ducted in vertical or horizontal.

The units can be arranged to satisfy a wide range of system requirements: with base or with integrated EC inverter pump low consumption, ErP2015 complied.

Controls

Full Floating features

The new generation electronic controller allows to manage the chiller by using the Full Floating technology, designed by Climaveneta for improving the system's efficiency for the fans (Floating Fans), for the circulating pump (Floating Flow) and finally for the working temperature (Floating Setpoint). This also allows to achieve all the following benefits: improvement of efficiency in both standard and extreme conditions, much lower operating noise in part load conditions, lower installation time, lower time for system set-up, broader operating limits, faster transient after defrosts.

Version

B Basic

Features

Structure and base in hot-dip galvanised steel with epoxy powder paint finish.
Condensate collecting tray for models 0011 ÷ 0061.
Hermetic scroll type compressors, equipped with the crankcase heater and thermal protection
High efficiency, low pressure drop AISI 316 stainless steel plate heat exchangers, fitted with heating element to provide frost protection.
Finned coils made with copper pipes and aluminium fins with large exchange surface area, tested for leaks with dried air at 30 bar.
Coil protection grid for models 0011+0061.
Radial fan, plug-fan type
Continuous fan speed regulation with pressure switch
User interface unit on board, accessible from the outside with a not touch system
Differential pressure switch.
Extensive operating limits in heating mode, leaving water temperature up to 55°C and down to -10°C, in cooling mode as well, leaving water temperature up to -10°C and max external air temperature 46°C.

Accessory

- Integrated hydronic module with high efficiency inverter pump, safety valve, expansion tank, manual air vent
- Soft starters
- HSW15 remote keyboard
- Outside air temperature probe for plant water set point compensation.
- Serial card BUS ADAPTER for ModBus
- Copper-Copper heat exchanger coils
- Copper-Aluminum heat exchanger coils with epoxy treatment
- External buffer tank and hydronic connecting kit
- External main switch kit
- Removable metal mesh water filter kit
- Rubber anti-vibration mounting kit

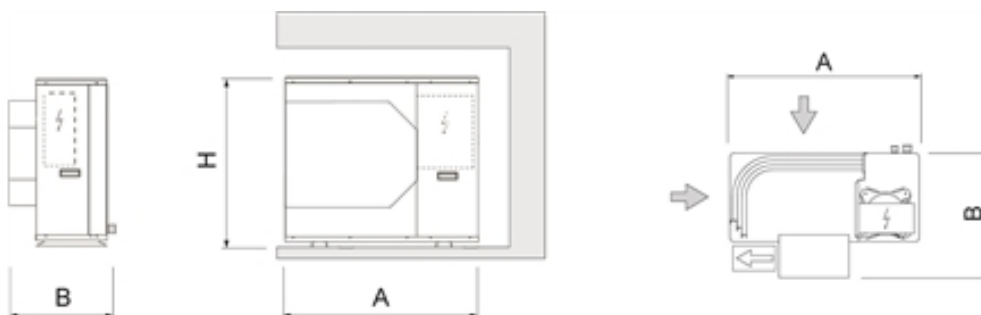


BRN2		0021	0025	0031	0041	0021	0025	0031	0041	0051	0061
Power supply	V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE											
COOLING ONLY (GROSS VALUE)											
Cooling capacity	(1) kW	4,82	5,91	7,31	9,61	4,81	6,01	7,37	10,00	11,2	13,1
Total power input	(1) kW	2,19	2,66	3,52	4,30	2,15	2,53	3,24	4,43	4,88	5,42
EER	(1) kW/kW	2,20	2,22	2,08	2,23	2,24	2,38	2,27	2,26	2,30	2,42
ESEER	(1) kW/kW	2,68	2,69	2,62	2,62	2,68	2,88	2,69	2,67	2,58	2,80
COOLING ONLY (EN14511 VALUE)											
Cooling capacity	(1)(2) kW	4,81	5,89	7,29	9,56	4,80	5,99	7,35	9,95	11,1	13,0
EER	(1)(2) kW/kW	2,45	2,46	2,23	2,51	2,50	2,64	2,46	2,52	2,51	2,63
ESEER	(1)(2) kW/kW	3,07	3,05	2,87	3,03	3,09	3,29	2,99	3,09	2,85	3,11
Cooling energy class		E	E	F	D	D	D	E	D	D	D
HEATING ONLY (GROSS VALUE)											
Total heating capacity	(3) kW	6,73	8,33	10,4	12,8	6,70	8,25	10,0	13,3	14,7	17,2
Total power input	(3) kW	2,47	3,09	3,71	4,80	2,46	2,94	3,48	4,94	5,08	6,02
COP	(3) kW/kW	2,72	2,70	2,80	2,67	2,72	2,81	2,87	2,69	2,89	2,86
HEATING ONLY (EN14511 VALUE)											
Total heating capacity	(3)(2) kW	6,76	8,37	10,5	12,9	6,73	8,29	10,0	13,4	14,8	17,3
COP	(3)(2) kW/kW	3,01	2,95	3,01	2,96	3,01	3,08	3,10	2,99	3,15	3,10
Cooling energy class		B	C	B	C	B	B	B	C	B	B
SEASONAL EFFICIENCY IN HEATING (EN14825 VALUE)											
PDesign	(4) kW	4,88	6,30	7,47	9,84	4,88	6,02	7,14	10,1	10,9	12,6
SCOP	(4)	3,09	3,18	3,14	3,10	3,18	3,32	3,17	3,21	3,06	3,14
Performance η_s (Reg. 811/2013 UE)	(4) %	120	124	123	121	124	130	124	125	119	123
Seasonal efficiency class (Regulation (UE) 811/2013)	(4)	A	A+	A	A	A+	A+	A+	A+	A	A
EXCHANGERS											
HEAT EXCHANGER USER SIDE IN REFRIGERATION											
Water flow	(1) m ³ /h	0,83	1,02	1,26	1,65	0,83	1,03	1,27	1,72	1,93	2,25
Pressure drop	(1) kPa	4,82	5,80	6,34	12,6	4,81	5,99	6,44	13,6	14,0	13,7
HEAT EXCHANGER USER SIDE IN HEATING											
Water flow	(3) m ³ /h	1,17	1,45	1,81	2,23	1,16	1,43	1,74	2,31	2,56	2,99
Pressure drop	(3) kPa	9,58	11,7	13,1	22,9	9,48	11,5	12,1	24,6	24,6	24,1
COMPRESSORS											
Compressors nr.	N°	1	1	1	1	1	1	1	1	1	1
No. Circuits	N°	1	1	1	1	1	1	1	1	1	1
FANS											
Air flow	m ³ /s	0,81	0,93	0,93	1,77	0,81	0,93	0,93	1,77	1,61	1,74
Available static pressure	Pa	120	120	120	120	120	120	120	120	120	120
NOISE LEVEL											
Sound power level in cooling	(5)(6) dB(A)	75	75	75	77	65	70	70	70	70	78
Sound power level in heating	(5)(7) dB(A)	75	75	75	77	75	75	75	77	77	77
Sound power level in heating	(5)(8) dB(A)	65	70	70	70	75	75	75	77	77	77
SIZE AND WEIGHT											
A	(9) mm	900	900	900	900	900	900	900	900	900	900
B	(9) mm	580	580	580	580	580	580	580	580	580	630
H	(9) mm	640	940	940	1240	640	940	940	1240	1240	1390
Operating weight	(9) kg	115	130	135	180	115	130	135	180	200	210

Notes:

- 1 Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- 2 Values in compliance with EN14511-3:201H
- 3 Plant (side) heat exchanger water (in/out) 40°C/45°C; Source (side) heat exchanger air (in) 7°C - 87% R.H.
- 4 Seasonal space heating energy efficiency class LOW TEMPERATURE in AVERAGE climate conditions [REGULATION (UE) N. 811/2013]
- 5 Total sound power of fans, as declared by the maker, at the rated speed of rotation and a useful static head of 120 Pa on the delivery side.
- 6 Sound power level in cooling, indoors.
- 7 Sound power level in heating, indoors.
- 8 Sound power level in cooling, outdoors.
- 9 Unit in standard configuration/execution, without optional accessories.

Certified data in EUROVENT



Residential chillers and heat pumps

MICS-CN 0072 - 0122



Reversible unit, air source for indoor installation 17,3-30,3 kW

MICS-CN is the Climaveneta range air-cooled heat pumps with gas R410A. These are indoor units that, thanks to the ducted centrifugal fans, may also be installed outdoors. They are fitted with hermetic Scroll compressors and Full Floating technology. The latter is an intelligent electronic unit providing the perfect answer to residential market requirements: compactness, ease of installation and quietness.

Controls

Full Floating technology

The new generation electronic controller allows to manage the chiller by using the Full Floating technology, designed by Climaveneta for improving the system's efficiency for the fans (Floating Fans), for the circulating pump (Floating Flow) and finally for the working temperature (Floating Setpoint). This also allows to achieve all the following benefits: improvement of efficiency in both standard and extreme conditions, much lower operating noise in part load conditions, lower installation time, lower time for system set-up, broader operating limits, faster transient after defrosts.

Version

FF Basic version, with built-in hydronic kit

Features

Structure and base in hot-dip galvanised steel with epoxy powder paint finish.
High efficiency, low pressure drop AISI 316 stainless steel plate heat exchangers, fitted with heating element to provide frost protection.
Control with foolproof device accessible from the outside.
Finned coils made with copper pipes and aluminium fins with large exchange surface area, tested for leaks with dried air at 30 bar.
User interface with display.
Electronic expansion valve
Available water pipe fittings in case of installation under appliance
The circuit includes:
Multistage centrifugal pump
Air vent valve
Differential pressure switch.
Expansion tank
Safety valve
Pressure gauge
Drain valve.
The full range is also available with the Class A efficiency rating (in heating).

Accessory

- Rubber anti-vibration mounting kit
- Removable metal mesh water filter kit
- Coil protection grids
- Remote control kit

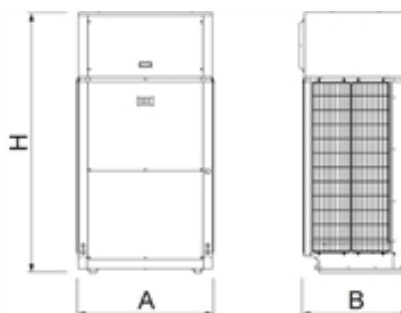


MICS-CN / FF			0072	0092	0122
Power supply	V/ph/Hz		400/3/50	400/3/50	400/3/50
PERFORMANCE					
COOLING ONLY (GROSS VALUE)					
Cooling capacity	(1) kW		17,3	21,8	30,3
Total power input	(1) kW		6,50	9,30	10,7
EER	(1) kW/kW		2,66	2,34	2,83
ESEER	(1) kW/kW		3,86	3,75	3,78
COOLING ONLY (EN14511 VALUE)					
Cooling capacity	(1)(2) kW		17,4	21,9	30,4
EER	(1)(2) kW/kW		2,77	2,44	3,16
ESEER	(1)(2) kW/kW		4,27	4,09	4,80
Cooling energy class			A	C	A
HEATING ONLY (GROSS VALUE)					
Total heating capacity	(3) kW		20,2	26,1	33,9
Total power input	(3) kW		6,50	8,60	11,2
COP	(3) kW/kW		3,11	3,03	3,03
HEATING ONLY (EN14511 VALUE)					
Total heating capacity	(3)(2) kW		20,1	26,0	33,8
COP	(3)(2) kW/kW		3,20	3,14	3,32
Cooling energy class			A	A	A
SEASONAL EFFICIENCY IN HEATING (EN14825 VALUE)					
PDesign	(4) kW		14,6	18,0	24,8
SCOP	(4)		3,27	3,36	3,60
Performance η_s (Reg. 811/2013 UE)	(4) %		128	132	141
Seasonal efficiency class (Regulation (UE) 811/2013)	(4)		A+	A+	A+
EXCHANGERS					
HEAT EXCHANGER USER SIDE IN REFRIGERATION					
Water flow	(1) m ³ /h		2,98	3,75	5,22
Available unit's head	(1) kPa		133,5	150,2	111,4
HEAT EXCHANGER USER SIDE IN HEATING					
Water flow	(3) m ³ /h		3,51	4,54	5,89
Available unit's head	(3) kPa		102,2	122,2	86,7
COMPRESSORS					
Compressors nr.	N°		2	2	2
No. Circuits	N°		1	1	1
FANS					
Air flow	m ³ /s		2,50	2,50	5,00
Available static pressure	Pa		120	120	120
NOISE LEVEL					
Sound power level in cooling	(5)(6) dB(A)		86	86	89
Sound power level in heating	(5)(7) dB(A)		86	86	89
Sound power level in heating	(5)(8) dB(A)		78	78	78
SIZE AND WEIGHT					
A	(9) mm		1040	1040	1630
B	(9) mm		790	790	790
H	(9) mm		2000	2000	2000
Operating weight	(9) kg		350	370	480

Notes:

- 1 Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
- 2 Values in compliance with EN14511-3:201H
- 3 Plant (side) heat exchanger water (in/out) 40°C/45°C; Source (side) heat exchanger air (in) 7°C - 87% R.H.
- 4 Seasonal space heating energy efficiency class LOW TEMPERATURE in AVERAGE climate conditions [REGULATION (UE) N. 811/2013]
- 5 Total sound power of fans, as declared by the maker, at the rated speed of rotation and a useful static head of 120 Pa on the delivery side.
- 6 Sound power level in cooling, indoors.
- 7 Sound power level in heating, indoors.
- 8 Sound power level in heating, outdoors.
- 9 Unit in standard configuration/execution, without optional accessories.

Certified data in EUROVENT



Residential chillers and heat pumps

BRAT-MC 0011 - 0121



Version

B	Basic
SL	Super-low noise version

Features

Coil protection grid for models 0011+0061.
Structure and base in hot-dip galvanised steel with epoxy powder paint finish.
Control with foolproof device accessible from the outside.
Finned coils made with copper pipes and aluminium fins with large exchange surface area, tested for leaks with dried air at 30 bar.
User interface with display.
Phase sequence controller for models 0071+0121

Accessory

- Rubber anti-vibration mounting kit
- Coil protection grid for models 0071+0121
- External main switch kit
- HSW10 remote keyboard

Condensing unit 5,61-33,4 kW

Outdoor split-system unit working with R410A refrigerant for connection with direct expansion coils or remote exchangers, with hermetic rotary scroll compressor and axial-flow fans. External panels and basement and base in galvanised sheet steel with paint finish.

Controls

HSW15 Electronic Controller

The HSW15 device is the new Climaveneta controller for the management of condensing units. The new 4-digit display offers clear reading of the variables in play, while the 14 symbols give an immediate view of machine states for system diagnostics. The 4 keys can be used to navigate the tree menu, access to which is password-protected for maximum security.

The electronic controller incorporates a series of protection algorithms in order to prevent damage being done to the main system components. The most important includes parameters concerning compressor start-up times in order to prevent over-frequent starting times (minimum delay after last stop and minimum delay after last start).

Condensation control is managed by modulating the air flow through the condensation coils by varying the ventilation speed. This allow to increase the unit's efficiency as well as improve the system quietness.



BRAT-MC / B			0011	0021	0025	0031	0041	0021	0025	0031	0041	0051	0061
Power supply		V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE													
COOLING													
Cooling capacity	(1)	kW	5,61	6,69	7,51	9,60	12,7	6,09	7,49	9,30	12,7	14,3	16,6
Total power input	(1)	kW	1,87	2,18	2,48	3,34	4,15	2,09	2,39	3,25	4,25	4,67	5,32
EER	(1)	kW/kW	3,00	3,07	3,03	2,87	3,06	2,91	3,13	2,86	2,99	3,06	3,12
COMPRESSORS													
Compressors nr.		N°	1	1	1	1	1	1	1	1	1	1	1
No. Circuits		N°	1	1	1	1	1	1	1	1	1	1	1
NOISE LEVEL													
Noise Pressure	(2)	dB(A)	34	35	35	35	38	35	35	35	38	38	38
Sound power level in cooling	(3)(4)	dB(A)	65	66	66	66	69	66	66	66	69	69	69
SIZE AND WEIGHT													
A	(5)	mm	900	900	900	900	900	900	900	900	900	900	900
B	(5)	mm	370	370	370	370	370	370	370	370	370	370	420
H	(5)	mm	640	640	940	940	1240	640	940	940	1240	1240	1390
Operating weight	(5)	kg	80	85	100	105	125	85	100	105	125	145	155

Notes:

1 Saturated intake temperature (dew) 5 °C; Source (side) heat exchanger air (in) 35 °C.

2 Average sound pressure level at 10 (m.) distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.

3 Sound power on the basis of measurements made in compliance with ISO 9614.

4 Sound power level in cooling, outdoors.

5 Unit in standard configuration/execution, without optional accessories.

BRAT-MC / SL			0071	0091	0101	0121
Power supply		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50
PERFORMANCE						
COOLING						
Cooling capacity	(1)	kW	20,1	22,7	27,8	33,4
Total power input	(1)	kW	6,90	8,02	8,86	11,8
EER	(1)	kW/kW	2,91	2,83	3,14	2,83
COMPRESSORS						
Compressors nr.		N°	1	1	1	1
No. Circuits		N°	1	1	1	1
NOISE LEVEL						
Noise Pressure	(2)	dB(A)	43	43	44	44
Sound power level in cooling	(3)(4)	dB(A)	74	74	76	76
SIZE AND WEIGHT						
A	(5)	mm	1450	1450	1450	1450
B	(5)	mm	550	550	550	550
H	(5)	mm	1200	1200	1700	1700
Operating weight	(5)	kg	245	250	320	325

Notes:

1 Saturated intake temperature (dew) 5 °C; Source (side) heat exchanger air (in) 35 °C.

2 Average sound pressure level at 10 (m.) distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.

3 Sound power on the basis of measurements made in compliance with ISO 9614.

4 Sound power level in cooling, outdoors.

5 Unit in standard configuration/execution, without optional accessories.

